

## REMARKS

### Amendments

Claim 1 is amended to define  $R^1$  is substituted alkyl, substituted or unsubstituted cycloalkyl, or substituted or unsubstituted cycloalkylalkyl. Additionally, claim 1 is amended to recite that when  $R^2$  is arylalkyl it is substituted by halogen, halogenated  $C_{1-4}$  alkyl, hydroxy,  $C_{1-4}$ -alkoxy, halogenated  $C_{1-4}$  alkoxy, nitro, methylenedioxy, ethylenedioxy, amino,  $C_{1-4}$  alkylamino, di- $C_{1-4}$ -alkylamino,  $C_{1-4}$ -hydroxyalkyl,  $C_{1-4}$ -hydroxyalkoxy, carboxy, cyano,  $-C(O)-NHOH$ ,  $-C(O)-NH_2$ ,  $C_{2-4}$ -acyl,  $C_{2-4}$ -alkoxycarbonyl,  $C_{1-4}$ -alkylthio,  $C_{1-4}$ -alkylsulphinyl,  $C_{1-4}$ -alkylsulphonyl, phenoxy, or combinations thereof.

Claims 4-6 and 8-15 are amended to recite that the groups for  $R^1$  or  $R^2$  are substituted or unsubstituted. Claims 3, 27-29, 73, 80, 100, and 107-114 are amended to be consistent with the language of amended claim 1. Claim 35 is amended to delete 6-Cyclopropylamino-9-(2-methylphenethyl)-2-trifluoromethylpurine.

New claims 115-119 are directed to further aspects of applicants claimed invention. See, e.g., page 31, lines 5-20 and page 44, lines 17-20.

### Rejection under 35 USC 103(a) in view of JP 2000-072773

Claims 1, 3, 16, 18-22, 24-29, 60, 61, 73, 94, 97, and 101-114 are rejected as allegedly being obvious in view of JP 2000-072773. This rejection is respectfully traversed.

The Examiner argues that compound 5 of JP '773 (see the Table 1-1 at page 9) is a compound of applicants' Formula I in which  $R^1$  is methyl and  $R^2$  is 2-(1,2,3,4-tetrahydro)quinolinyl-methyl. While acknowledging that the compound is excluded by prior proviso (a) of claim 1, the Examiner, however, asserts that this compound renders structurally obvious the 3-yl and 4-yl position isomers.

Claim 97 recites that  $R^1$  is cyclopropyl. The rejection also fails to indicate how compound 5 of JP '773 renders obvious claim 97.

Additionally, neither compound 5 of JP '773, nor its 3-yl and 4-yl position isomers, suggest compounds of applicants' claim 1. Compare the definition of  $R^1$  in

claim 1.

In view of the above remarks, it is respectfully submitted that the rejection fails to establish that JP '773 renders obvious applicants' claimed invention. Withdrawal of the rejection is respectfully requested.

**Rejection under 35 USC 103(a) in view of Kelley et al. (1990)**

In the Office Action of July 11, 2006, claims 1, 3, 4, 6, 10, 16, 17, 21, 27-32, 60, 61, 68, 70 and 94 are rejected as allegedly being obvious in view of the 1990 article by Kelley et al. This rejection is respectfully traversed.

In the rejection the Examiner initially refers to compound 2 of Kelley et al., 6-methylamino-9-(4-methylbenzyl)-2-trifluoromethylpurine and argues that this compound renders the corresponding 6-ethylamino compound obvious based on homology. However, as noted previously, the claims do not encompass compound 2 of Kelley et al., nor do they encompass the corresponding ethylamino compound. In compound 2 and the corresponding ethylamino compound, the compound is substituted in the 9-position by methylbenzyl. Compare proviso (a) of the prior version of claim 1, and compare the definition of R<sup>1</sup> in amended claim 1.

Additionally, the rejection asserts that compounds 8, 9, 11, 12, 14, 15, 17, 18, 21 and 22 are "still relevant" to claims 68 and 70. However, claims 68 and 70 were cancelled by prior amendment.

In view of the above remarks, it is respectfully submitted that Kelley et al. (1990) fails to render obvious applicants' claimed invention. Withdrawal of the rejection is respectfully requested.

**Rejection under 35 USC 103(a) in view of Bourguignon et al.**

Claims 1, 3, 6, 10, 16, 17, 21, 27-32, 35, 60, 61 and 94 are rejected as allegedly being obvious in view of the article by Bourguignon et al. This rejection is again respectfully traversed.

In compound 6i of Bourguignon et al., NR<sub>1</sub>R<sub>2</sub> is amino, -CH<sub>2</sub>-R is benzyl, and R<sub>3</sub> is CF<sub>3</sub>. The Examiner argues that this compound renders obvious the corresponding dimethylbenzyl compound based on homology. It is further alleged that compound 6i

renders obvious the chain homolog where -CH<sub>2</sub>-R is phenpropyl, rather than benzyl.

The asserted compounds do not render obvious applicants' claim 1. Compare the definition of R<sup>1</sup> and R<sup>2</sup> in amended claim 1. Additionally, although claim 35 is included in the rejection, the rejection fails to provide any explanation as to why the dimethylbenzyl or phenpropyl analogues of compound 6i of Bourguignon et al. render obvious any of the specific compounds recited in claim 35.

In view of the above remarks, it is respectfully submitted that Bourguignon et al. fails to render obvious applicants' claimed invention. Withdrawal of the rejection is respectfully requested.

**Rejection under 35 USC 103(a) in view of Kelley et al. (1997)**

In the Office Action of July 11, 2006, claims 1, 3-6, 8, 15-31, 60, 61, 94, 95, 97, and 100-114 are rejected as allegedly being obvious in view of the 1990 article by Kelley et al. This rejection is respectfully traversed.

The rejection refers to compound 80 which has a 2-CF<sub>3</sub> substituent, a 6-cyclopropylamino substituent, and 9-cyclopropylmethyl substituent. The Examiner argues that this compound renders obvious the corresponding compounds in which the 9-substituent is cyclopropyl-(C(CH<sub>3</sub>)<sub>2</sub>)-, methylcyclopropyl-CH<sub>2</sub>-, or cyclopropyl-propyl.

Additionally, it is argued that it would be obvious to modify other compounds described by Kelley et al. (1997), namely compounds 49-52, 54, and 56-70,. Each of these compounds have an H atom at the 2-position. The rejection asserts that it would be obvious to modify these compounds to have a 2-CF<sub>3</sub> substituent, based on compound 80.

However, the disclosure of Kelley et al. (1997) clearly suggests away from modifying compound 80, or modifying other compounds in view of compound 80. Beginning at the bottom left hand column of page 3212, Kelley et al. (1997) indicate that compound 80 appeared to be a candidate for development as an antipsychotic agent,. However, further testing of compound 80 revealed properties "considered to be incompatible with further development of compound 80 as a candidate antipsychotic agent." Similarly, in the "Conclusion" section in the right column of page 3212, Kelley et al. (1997) state that "the overall profile of 80 is incompatible with clinical development." It is noted that compound 80 is the only compound described by Kelley et

al. (1997) that has a 2-CF<sub>3</sub> substituent.

Thus, presented with the disclosure Kelley et al. (1997), one of ordinary skill in the art would be dissuaded from modifying compound 80, a compound expressly characterized as having an overall profile that is incompatible with clinical development, so as to arrive at a compound in accordance with applicants' claimed invention. Similarly, one of ordinary skill in the art would not be motivated by the disclosure of compound 80, with its incompatible overall profile, to modify other compounds of Kelley et al. so as to have the 2-CF<sub>3</sub> substituent of compound 80.

In view of the above remarks, it is respectfully submitted that Kelley et al. (1997) fails to render obvious applicants' claimed invention. Withdrawal of the rejection is respectfully requested.

#### **Obviousness-Type Double Patenting Rejection in view of Serial No. 10/854,354**

Claims 1, 3-36, 60-61, 71-74, 77, 80, and 94-114 are provisionally rejected as allegedly being obvious in view of claims 22-53, 62-67, 72-118 of Serial No. 10/845,354, a continuation of the instant application.

As is recognized in the rejection, the claims of the instant application and the claims of Serial No. 10/845,354 relate to different statutory classes of patentable subject matter. Specifically, the claims of the instant applications relate to compounds and compositions, whereas the claims of Serial No. 10/845,354 relate to methods of use.

In the rejection, it is argued that "there is ordinarily no patentable distinction between compositions of matter and methods." No support is presented for this broad general presumption. Further, the number of Restrictions issued by the USPTO between compositions and methods clearly demonstrates that there is no such general presumption.

In any event, in view of the arguments presented above, the prior art rejections under 35 USC 103(a) should be withdrawn. Upon withdrawal of said rejections, the present provisional nonstatutory rejection will be the only remaining rejection. As is apparent, the instant application was filed before the continuation application Serial No. 10/845,354. Thus, pursuant to MPEP §804(I)(B)(1), the provisional rejection should be withdrawn:

If a “provisional” nonstatutory obviousness-type double patenting (ODP) rejection is the only rejection remaining in the earlier filed of the two pending applications, while the later-filed application is rejectable on other grounds, the examiner should withdraw that rejection and permit the earlier-filed application to issue as a patent without a terminal disclaimer.

\*\*\*\*\*

If “provisional” ODP rejections in two applications are the only rejections remaining in those applications, the examiner should withdraw the ODP rejection in the earlier filed application thereby permitting that application to issue without need of a terminal disclaimer.

In view of the above remarks, withdrawal of the rejection is respectfully requested.

**Obviousness-Type Double Patenting Rejection in view of Serial No. 10/636,996**

Claims 1, 3-36, 60-61, 71-74, 77, 80, and 94-114 are provisionally rejected as allegedly being obvious in view of claims 1-95 of Serial No. 10/636,996.

The Examiner acknowledges that this rejection will be dropped. See the bottom of page 11 of the Office Action. Withdrawal of the provisional rejection is respectfully requested.

The Commissioner is hereby authorized to charge any fees associated with this response or credit any overpayment to Deposit Account No. 13-3402.

Respectfully submitted,

/Brion P. Heaney/

Brion P. Heaney (Reg. No. 32,542)

Attorney for Applicant(s)

MILLEN, WHITE, ZELANO & BRANIGAN, P.C.

Arlington Courthouse Plaza I, Suite 1400

2200 Clarendon Boulevard

Arlington, Virginia 22201

(703) 812-5308 [Direct Dial]

(703) 243-6410 [Facsimile]

Internet Address: [heaney@mwzb.com](mailto:heaney@mwzb.com)

Filed: April 23, 2007